3.2.6 Lower Potomac Group Summary

3.2.6.1 Dogue Creek Watershed

Description. Dogue Creek Watershed is a medium-sized watershed, with approximately 17 miles of stream assessed. It is located along the middle of the southeastern boundary of the County. The watershed is entirely contained within the County Boundaries, and drains directly to the Potomac River.

Habitat. The habitat assessment results for Dogue Creek Watershed are summarized by stream in Table 3-29. Habitat scores for each reach are depicted in Figure 3-38. Based on a length weighted habitat score of 96 (Table 3-2), Dogue Creek Watershed is in the lower range of quality, compared to the rest of the County. Approximately 1 mile of stream was categorized as having "very poor" habitat conditions, 7 miles as "poor," and 8 miles as "fair."

CEM. Based on the CEM evaluations approximately 50 percent of the channels assessed in Dogue Creek Watershed are in Evolutionary Stage 3 (Table 3-3), with most of the remainder of the watershed in Stage 4. Figure 3-39 summarizes the CEM results for Dogue Creek Watershed.

Infrastructure. The infrastructure inventory resulted in 313 inventory points. The most significant problems were 10 inventory points, which was given impact scores of 10, including deficient buffers, head cuts, obstructions, and an erosional area. The infrastructure inventory results are summarized in Table 3-30. Figures 3-40, 3-41, 3-42, 3-43, and 3-44 summarize impact scores for the erosion problems; deficient buffers; crossings; pipes/ditches; and dumps, obstructions, and utilities, respectively.

3.2.6.2 Little Hunting Creek Watershed

Description. Little Hunting Creek Watershed is a medium-sized watershed, with approximately 10 miles of stream assessed. It is located along the southeastern boundary of the County. The watershed is entirely contained within the County Boundaries, and drains directly to the Potomac River.

Habitat. The habitat assessment results for Little Hunting Creek Watershed are summarized by stream in Table 3-31. Habitat scores for each reach are depicted in Figure 3-38. Based on a length weighted habitat score of 82 (Table 3-2), Little Hunting Creek Watershed is one of the poorest quality watersheds in the County. Approximately 2 miles of stream were categorized as having "very poor" habitat conditions, 5.5 miles as "poor," 2 miles as "fair."

CEM. Based on the CEM evaluations approximately 40 percent of the channels assessed in Little Hunting Creek Watershed are in Evolutionary Stage 3 (Table 3-3), with most of the remainder of the watershed in Stage 4. Figure 3-39 summarizes the CEM results for Little Hunting Creek Watershed.

Infrastructure. The infrastructure inventory resulted in 207 inventory points. The most significant problems were related to a pipe and a deficient buffer, which was given impact scores of 9. The infrastructure inventory results are summarized in Table 3-32. Figures 3-40,

3-41, 3-42, 3-43, and 3-44 summarize impact scores for the erosion problems; deficient buffers; crossings; pipes/ditches; and dumps, obstructions, and utilities, respectively.

3.2.6.3 Belle Haven Watershed

Description. Belle Haven Watershed is a small watershed, with approximately 2 miles of stream assessed. It is located on the eastern boundary of the County. The watershed is entirely contained within the County Boundaries, containing multiple tributaries that drain directly to Cameron Run and the Potomac River.

Habitat. The habitat assessment results for Belle Haven Watershed are summarized by stream in Table 3-33. Habitat scores for each reach are depicted in Figure 3-38. Based on a length weighted habitat score of 71 (Table 3-2), Belle Haven Watershed is the poorest quality watershed in the County. Approximately 1 mile of stream was categorized as having "very poor" habitat conditions, 0.2 miles as "poor," and 0.5 miles as "fair."

CEM. Based on the CEM evaluations all of the channels assessed in Belle Haven Watershed are in Evolutionary Stage 3 (Table 3-3). Figure 3-39 summarizes the CEM results for Belle Haven Watershed.

Infrastructure. The infrastructure inventory resulted in 35 inventory points. The most significant problem was related to an erosional area, which was given an impact score of 8. The infrastructure inventory results are summarized in Table 3-34. Figures 3-40, 3-41, 3-42, 3-43, and 3-44 summarize impact scores for the erosion problems; deficient buffers; crossings; pipes/ditches; and dumps, obstructions, and utilities, respectively.

TABLE 3-29
Habitat Assessment Summary for Little Dogue Creek Watershed
Fairfax County Stream Physical Assessment

	Linear Feet (Percent) of Stream					
Stream	**Very Poor**	**Poor**	**Fair**	**Good**	**Excellent**	**Total**
Barnyard Run	0 (0.00)	843 (27.07)	2,271 (72.93)	0 (0.00)	0 (0.00)	3,114
Dogue Creek	700 (3.10)	5,415 (23.96)	16,185 (71.61)	303 (1.34)	0 (0.00)	22,603
North Fork	0 (0.00)	3,320 (100.00	0 (0.00)	0 (0.00)	0 (0.00)	3,320
North Fork of Dogue Creek	4,271 (14.10)	26,025 (85.90)	0 (0.00)	0 (0.00)	0 (0.00)	30,295
Piney Run	1,403 (5.44)	2,548 (9.87)	21,855 (84.69)	0 (0.00)	0 (0.00)	25,806
Tributary to Douge Creek	0 (0.00)	0 (0.00)	2,355 (100.00	0 (0.00)	0 (0.00)	2,355
Watershed Total	6,373 (7.28)	38,151 (43.60)	42,666 (48.77)	303 (0.35)	0 (0.00)	87,493

TABLE 3-30
Infrastructure Assessment Summary for Dogue Creek Watershed
Fairfax County Stream Physical Assessment

Impact Score	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**>10**	**Total**
Deficient Buffers	0	0	0	3	1	6	5	41	14	6	2	N/A	78
Crossings	32	20	30	13	12	3	0	1	0	0	0	N/A	111
Ditches and Pipes	43	21	5	5	3	1	0	0	0	0	0	N/A	78
Erosion	0	0	0	0	1	1	2	8	4	1	1	N/A	18
Head Cut	0	0	0	0	0	1	0	0	0	0	4	N/A	5
Obstruction	6	2	0	0	1	0	1	1	3	4	3	N/A	21
Utility	0	0	0	1	0	0	0	0	1	0	0	0	2
Total	**81**	**43**	**35**	**22**	**18**	**12**	**8**	**51**	**22**	**11**	**10**	**0**	**313**

TABLE 3-31
Habitat Assessment Summary for Little Hunting Creek Watershed
Fairfax County Stream Physical Assessment

	Linear Feet (Percent) of Stream					
Stream	**Very Poor**	**Poor**	**Fair**	**Good**	**Excellent**	**Total**
Little Hunting Creek	6,610 (32.96)	11,293 (56.31)	2,154 (10.74)	0 (0.00)	0 (0.00)	20,057
North Branch	3,648 (29.57)	8,689 (70.43)	0 (0.00)	0 (0.00)	0 (0.00)	12,337
Paul Spring Branch	0 (0.00)	9,029 (47.20)	10,098 (52.80)	0 (0.00)	0 (0.00)	19,127
Tributary to Potomac River	732 (100.00	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	732
Watershed Total	**10,991 (21.03)**	**29,011 (55.52)**	**12,252 (23.45)**	**0 (0.00)**	**0 (0.00)**	**52,253**

TABLE 3-32
Infrastructure Assessment Summary for Little Hunting Creek Watershed
Fairfax County Stream Physical Assessment

Impact Score	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**>10**	**Total**
Deficient Buffers	1	0	5	15	4	20	4	8	1	1	0	N/A	59
Crossings	26	11	5	2	1	2	2	1	0	0	0	N/A	50
Ditches and Pipes	38	8	5	5	3	0	1	1	0	1	0	N/A	62
Erosion	0	0	0	0	0	3	2	1	0	0	0	N/A	6
Head Cut	0	0	0	0	2	0	0	0	0	0	0	N/A	2
Obstruction	0	1	6	9	1	1	1	0	0	0	0	N/A	19
Utility	1	2	3	3	0	0	0	0	0	0	0	0	9
Total	**66**	**22**	**24**	**34**	**11**	**26**	**10**	**11**	**1**	**2**	**0**	**0**	**207**

TABLE 3-33
Habitat Assessment Summary for Belle Haven Watershed
Fairfax County Stream Physical Assessment

	Linear Feet (Percent) of Stream					
Stream	**Very Poor**	**Poor**	**Fair**	**Good**	**Excellent**	**Total**
Hunting Creek	3,498 (79.73)	889 (20.27)	0 (0.00)	0 (0.00)	0 (0.00)	4,387
Tributary to Hunting Creek	2,583 (100.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	2,583
Tributary to Potomac River	0 (0.00)	0 (0.00)	2,396 (100.00)	0 (0.00)	0 (0.00)	2,396
Watershed Total	**6,081 (64.93)**	**889 (9.50)**	**2,396 (25.58)**	**0 (0.00)**	**0 (0.00)**	**9,366**

TABLE 3-34
Infrastructure Assessment Summary for Belle Haven Watershed
Fairfax County Stream Physical Assessment

Impact Score	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**>10**	**Total**
Deficient Buffers	0	0	0	3	2	3	0	3	0	0	0	N/A	11
Crossings	8	0	0	0	0	0	0	0	0	0	0	N/A	8
Ditches and Pipes	10	0	0	0	0	0	0	0	0	0	0	N/A	10
Erosion	0	0	0	0	0	2	0	0	1	0	0	N/A	3
Head Cut	0	0	0	0	0	0	0	0	0	0	0	N/A	0
Obstruction	0	0	0	0	0	1	0	1	0	0	0	N/A	2
Utility	0	0	0	1	0	0	0	0	0	0	0	0	1
Total	**18**	**0**	**0**	**4**	**2**	**6**	**0**	**4**	**1**	**0**	**0**	**0**	**35**

BELLE HAVEN

LITTLE HUNTING CREEK

DOGUE CREEK

Fairfax County Boundary

Habitat Rating

Excellent

Good

Fair

Poor

Very Poor

No Habitat Assessment

Lakes and Ponds

Watersheds

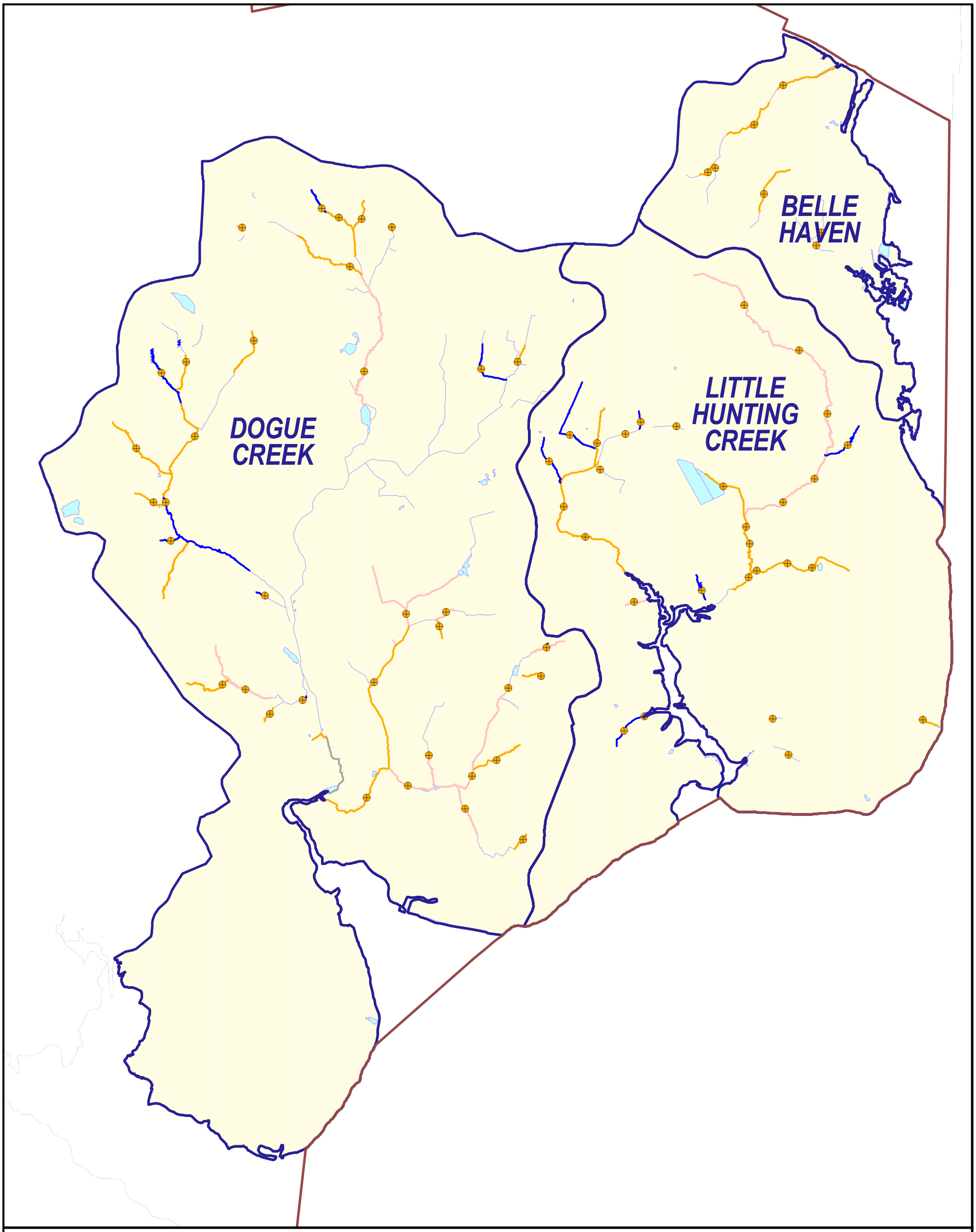
N

WATERSHED GROUP:
LOWER POTOMAC

0 2000 4000 6000 8000 Feet

Figure 3-38
Habitat Assessment
Lower Potomac Group
Fairfax County Stream Physical Assessment

CH2MHILL



Inventory Types
- Cross Section
- Head Cut

CEM Stage
- Not Assigned
- 1
- 2
- 3
- 4
- 5
- Fairfax County Boundary
- Lakes and Ponds
- Streams
- Watersheds

N

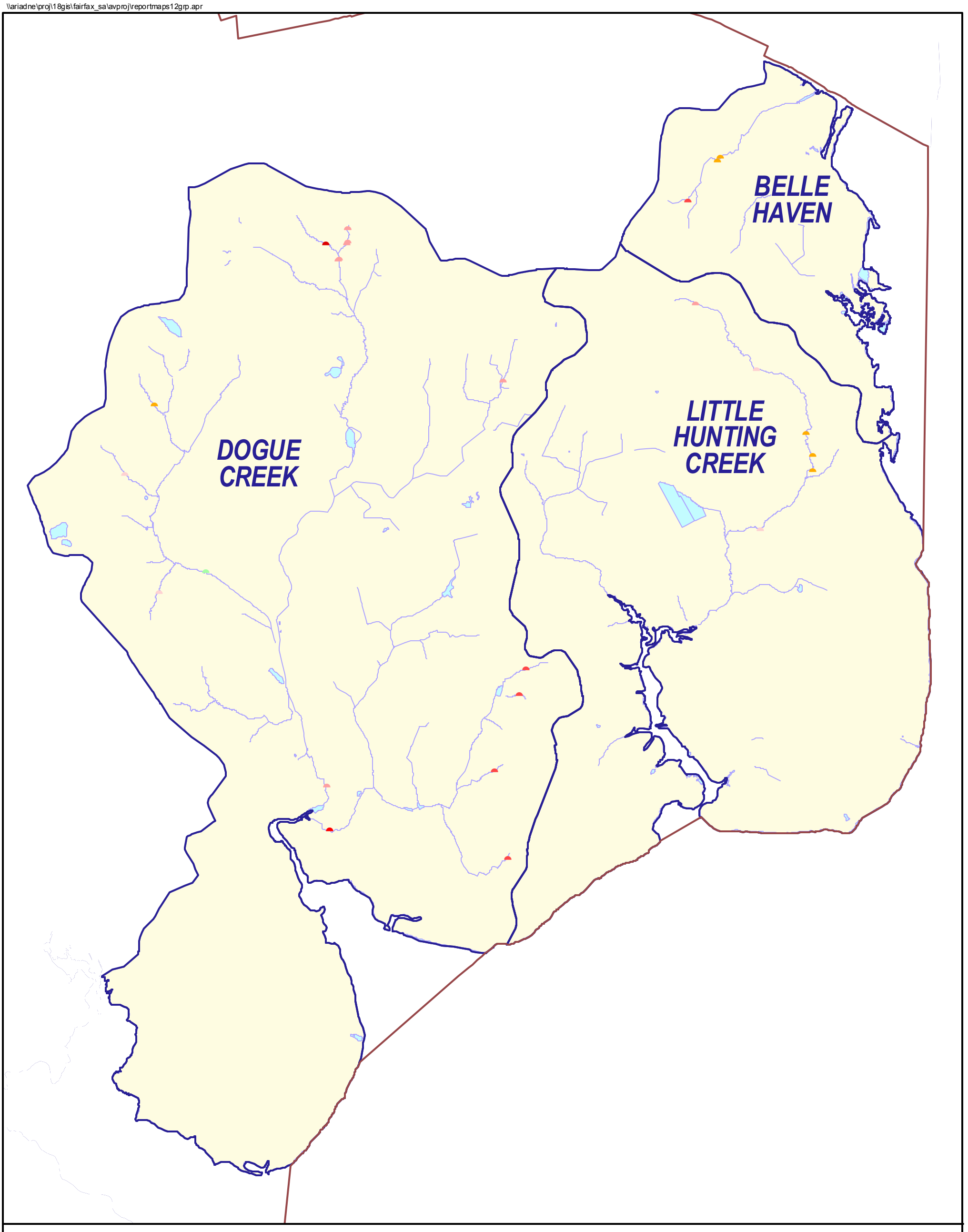
0 2000 4000 6000 8000 Feet

WATERSHED GROUP: LOWER POTOMAC

Figure 3-39
CEM Stages
Lower Potomac Group
Fairfax County Stream Physical Assessment

CH2MHILL

\\ariadne\proj\18gis\fairfax_sa\avproj\reportmaps12grp.apr



Erosion by Impact Score
1
2
3
4
5
6
7
8
9
10

Fairfax County Boundary
Lakes and Ponds
Streams
Watersheds

N

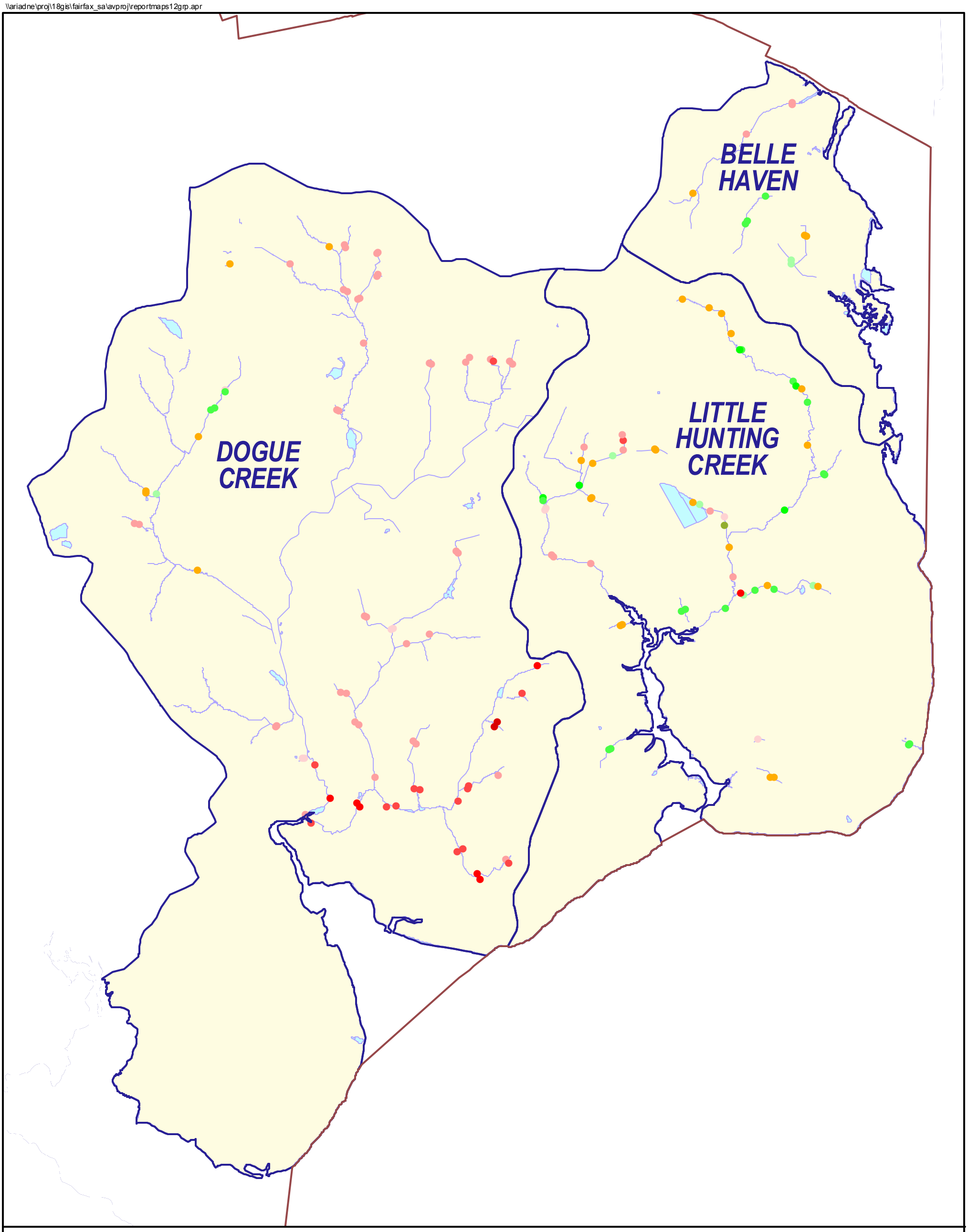
WATERSHED GROUP: LOWER POTOMAC

0 2000 4000 6000 8000 Feet

CH2MHILL

Figure 3-40
Erosion Impacts
Lower Potomac Group
Fairfax County Stream Physical Assessment

\\ariadne\proj\18gis\fairfax_sa\avproj\reportmaps12grp.apr



Deficient Buffer by Impact Score

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

Fairfax County Boundary
Lakes and Ponds
Streams
Watersheds

N

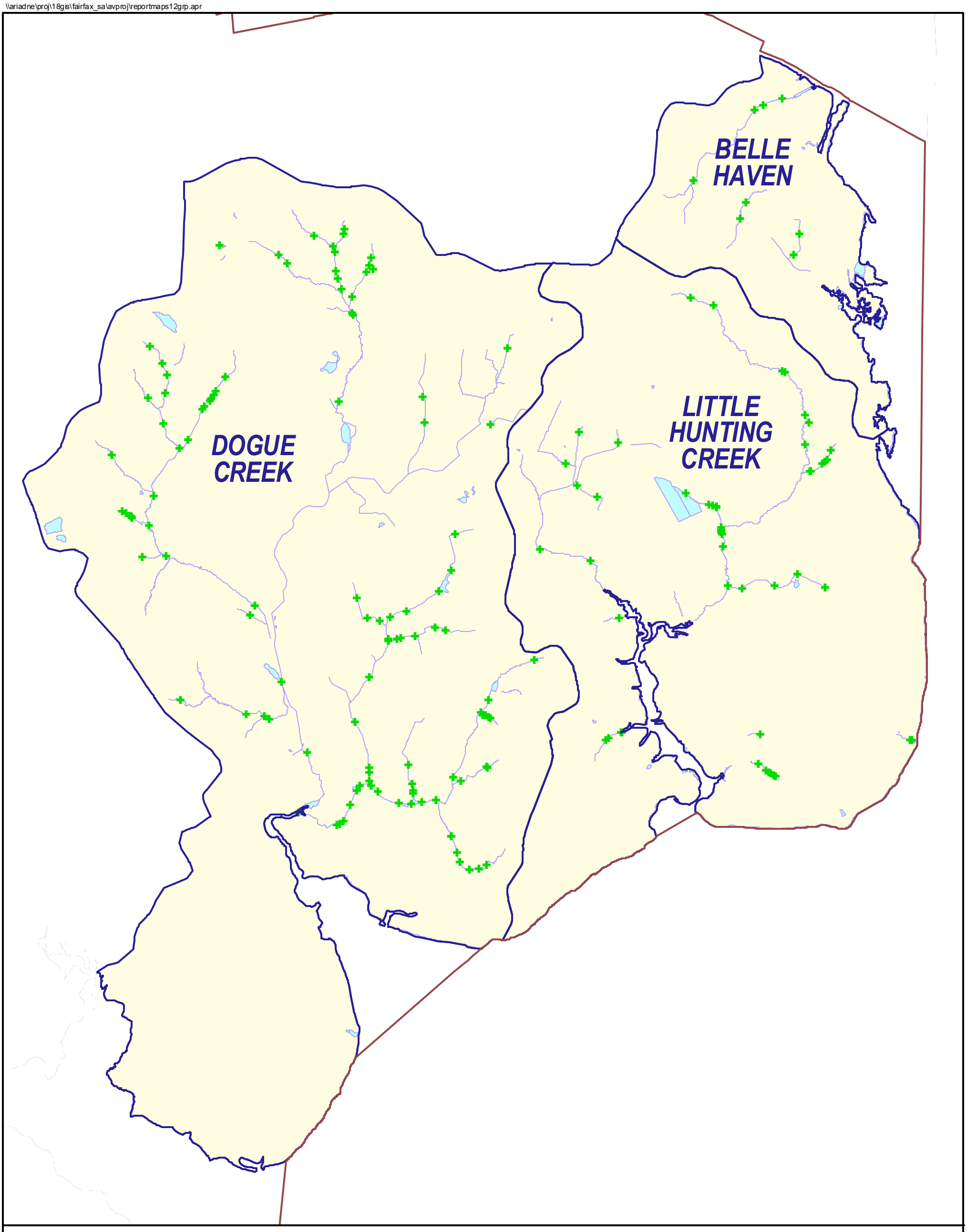
WATERSHED GROUP: LOWER POTOMAC

0 2000 4000 6000 8000 Feet

Figure 3-41
Deficient Buffer Impacts
Lower Potomac Group
Fairfax County Stream Physical Assessment

CH2MHILL

\\ariadne\proj\18gis\fairfax_sa\avproj\reportmaps12grp.apr



Inventory Type
- Crossing

- Fairfax County Boundary
- Lakes and Ponds
- Streams
- Watersheds

WATERSHED GROUP:
LOWER POTOMAC

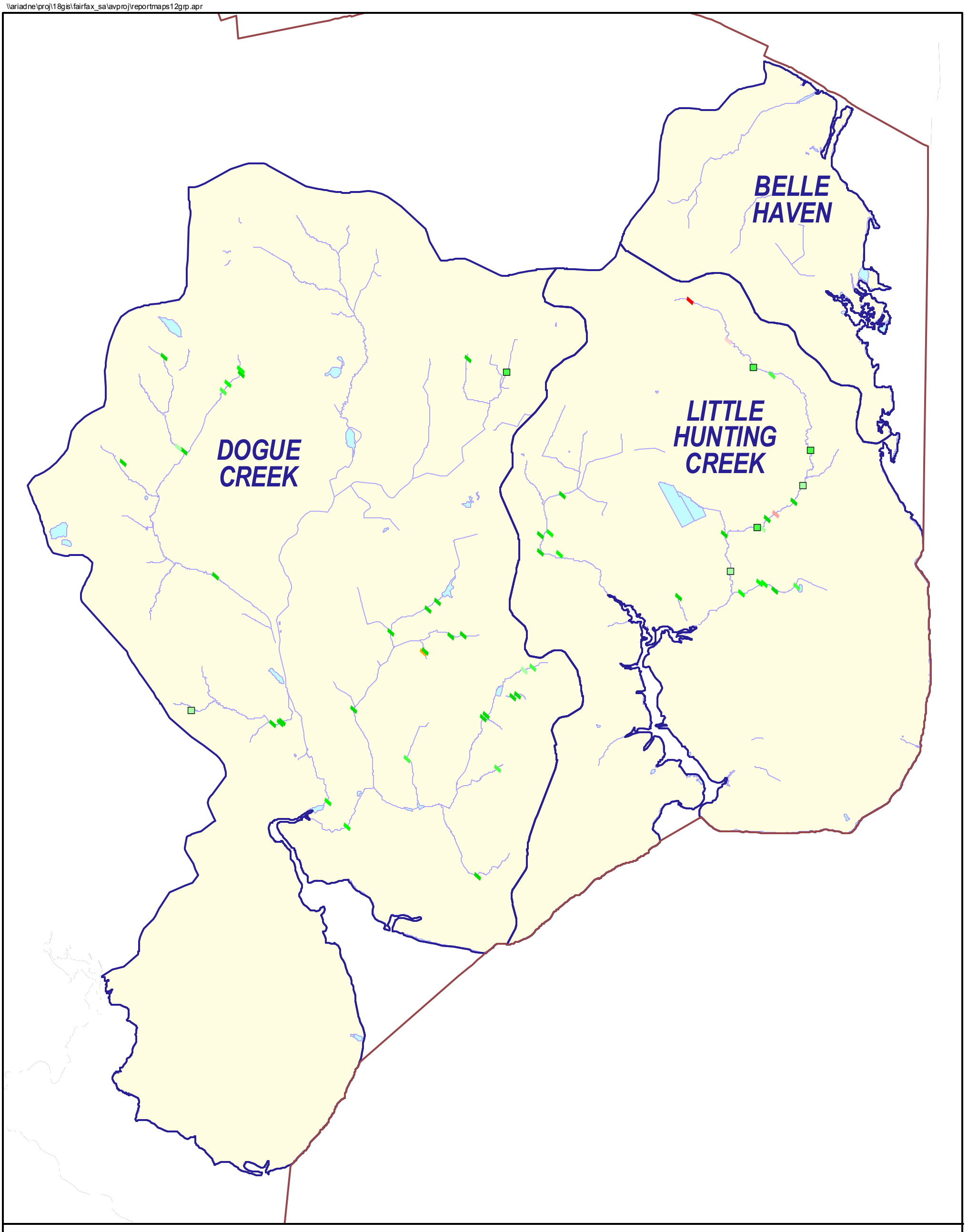
N

0 2000 4000 6000 8000 Feet

Figure 3-42
Crossings
Lower Potomac Group
Fairfax County Stream Physical Assessment

CH2MHILL

\\ariadne\proj\18gis\fairfax_sa\avproj\reportmaps12grp.apr



Pipe / Ditch by Impact Score

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

Fairfax County Boundary
Lakes and Ponds
Streams
Watersheds

WATERSHED GROUP: LOWER POTOMAC

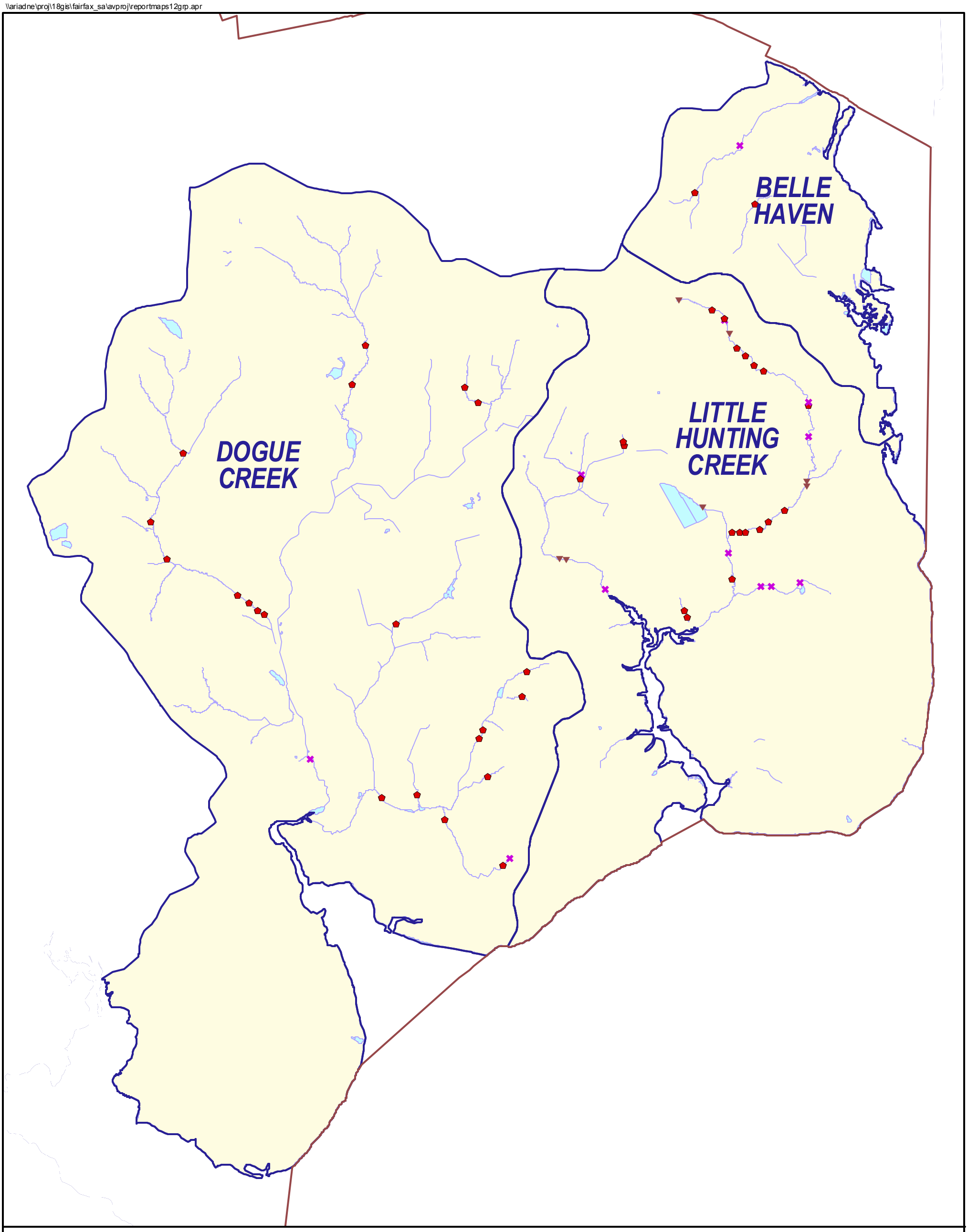
N

0 2000 4000 6000 8000 Feet

Figure 3-43
Pipe and Ditch Impacts
Lower Potomac Group
Fairfax County Stream Physical Assessment

CH2MHILL

\\ariadne\proj\18gis\fairfax_sa\avproj\reportmaps12grp.apr



Inventory Types
- Dump
- Obstruction
- Utility

- Fairfax County Boundary
- Lakes and Ponds
- Streams
- Watersheds

WATERSHED GROUP: LOWER POTOMAC

N

0 2000 4000 6000 8000 Feet

Figure 3-44
Dumps, Obstructions, and Utilities
Lower Potomac Group
Fairfax County Stream Physical Assessment

CH2MHILL